

WHAT IS CLAIMED IS:

1. A color cathode ray tube comprising:
a panel having a phosphor screen on an inner
surface thereof;

5 an electron gun which emits electron beams toward
the phosphor screen; and

a substantially rectangular shadow mask located
opposite the phosphor screen inside the panel and
having a major axis and a minor axis extending at right
10 angles to each other and to a tube axis,

the shadow mask including a main mask opposed
substantially to the whole area of the phosphor screen
and having a number of electron beam passage apertures,
and an auxiliary mask fixedly lapped on the main mask
15 in a region containing the minor axis and having
a plurality of electron beam passage apertures
corresponding to a part of the phosphor screen,

the main mask including an effective portion
formed having the electron beam passage apertures,
20 a nonporous portion situated around the effective
portion, a skirt portion, and first beads located
substantially covering the whole circumference of
the skirt portion,

the auxiliary mask including a porous portion
25 formed having the electron beam passage apertures,
nonporous portions continuous individually with the
opposite ends of the porous portion in the direction of

the minor axis, a pair of skirt portions extending individually from the nonporous portions and superposed on the skirt portion of the main mask, and second beads formed individually on the skirt portions and situated
5 overlapping the first beads of the main mask, and

the height or width of the first and second beads in a superposed portion in which the main mask and the auxiliary mask overlap each other being different from that of the beads in non-superposed portions outside
10 the superposed portion.

2. A color cathode ray tube according to claim 1, wherein the height or width of the first and second beads in the superposed portion is smaller than that of the beads in the non-superposed portions.

15 3. A color cathode ray tube according to claim 1, wherein the width or height of the beads formed in the non-superposed portions of the skirt portion on the long sides of the shadow mask increases with distance from the superposed portion.

20 4. A color cathode ray tube according to claim 2, wherein the width or height of the beads formed in the non-superposed portions of the skirt portion on the long sides of the shadow mask increases with distance from the superposed portion.

25 5. A method of manufacturing a color cathode ray tube, which comprises a panel having a phosphor screen on an inner surface thereof, an electron gun which

emits electron beams toward the phosphor screen, and a substantially rectangular shadow mask located opposite the phosphor screen inside the panel and having a major axis and a minor axis extending at right angles to each other and to a tube axis, the shadow mask including a main mask opposed substantially to the whole area of the phosphor screen and having a number of electron beam passage apertures and an auxiliary mask fixedly lapped on the main mask in a region containing the minor axis and having a plurality of electron beam passage apertures corresponding to a part of the phosphor screen, the main mask including an effective portion having the electron beam passage apertures, a nonporous portion situated around the effective portion, a skirt portion extending from the nonporous portion, and first beads located substantially covering the whole circumference of the skirt portion, and the auxiliary mask including a porous portion having the electron beam passage apertures, nonporous portions continuous individually with the opposite ends of the porous portion in the direction of the minor axis, a pair of skirt portions extending individually from the nonporous portions and superposed on the skirt portion of the main mask, and second beads formed individually on the skirt portions and situated overlapping the first beads of the main mask, the method comprising:

preparing a flat first mask base for the main mask

including an effective portion having a number of electron beam passage apertures, and a flat second mask base for the auxiliary mask including a porous portion having a number of electron beam passage apertures;

5. lapping the second mask base on a region containing the minor axis of the first mask base;

fixing the lapped first and second mask bases to each other after positioning the first and second mask bases with respect to each other;

10 press-forming the fixed first and second mask bases into a given shape with the respective peripheral portions of the first and second mask bases held to form the first and second beads, thereby forming the shadow mask having the main mask and the auxiliary mask; and

15 mask; and

differentiating the height or width of the first and second beads in a superposed portion in which the main mask and the auxiliary mask are superposed on each other from that of the beads in non-superposed portions

20 outside the superposed portion in forming the first and second beads.

6. A method of manufacturing a color cathode ray tube according to claim 5, wherein the height or width of the first and second beads in the superposed portion

25 is made smaller than that of the beads in the non-superposed portions.

7. A method of manufacturing a color cathode ray

tube according to claim 5, wherein the first beads in the non-superposed portions of the skirt portion on the long sides of the shadow mask are formed so that the width or height thereof increases with distance from the superposed portion.

8. A method of manufacturing a color cathode ray tube according to claim 6, wherein the first beads in the non-superposed portions of the skirt portion on the long sides of the shadow mask are formed so that the width or height thereof increases with distance from the superposed portion.